CLAIMS

- 1. An in-vivo device comprising:
 - a substantially spherical housing, said housing comprising a sensor;
- and

5

10

20

- a detachable appendage.
- 2. The device according to claim 1 wherein the sensor is an imager.
- 3. The device according to claim 2 wherein the imager is a CMOS imager.
- 4. The device according to claim 1 wherein the housing includes a viewing window.
- 5. The device according to claim 1 wherein the appendage includes a degradable material.
- 6. The device according to claim 5 wherein the degradable material is pH sensitive.
- 7. The device according to claim 1 wherein the appendage and the spherical housing are glued together.
 - 8. The device according to claim 1 wherein the appendage and the spherical housing are glued together using dissolvable glue.
 - 9. The device according to claim 1 wherein the appendage comprises:
 - an outer coating; and
 - an internal filling.
 - 10. The device according to claim 9 wherein the outer coating is semipermeable.
 - 11. An ingestible imaging device comprising:
- a substantially spherical imaging device; and
 - a detachable appendage.
 - 12. The device according to claim 11 comprising: an illumination source; and
 - a transmitter.
- 30 13. The device according to claim 12 wherein the illumination source has intensity that is adjustable in vivo.
 - 14. The device according to claim 11 comprising a ballast weight.
 - 15. The device according to claim 11 wherein the appendage includes a degradable material.

- 16. The device according to claim 15 wherein the degradable material is pH sensitive.
- 17. The device according to claim 11 wherein the appendage and the spherical housing are glued together.
- 18. The device according to claim 11 the appendage and the spherical housing are glued together with dissolvable glue.
 - 19. The device according to claim 11 wherein the appendage comprises: an outer coating; and an internal filling.
- 10 20. The device according to claim 19 wherein the outer coating is semipermeable.
 - 21. A method for in vivo sensing, the method comprising: causing detachment of an appendage of a sensing device in vivo.
 - 22. The method according to claim 21 wherein the sensing device is substantially spherical.
 - 23. The method according to claim 21 comprising: orienting the sensing device along a body lumen wall.
 - 24. The method according to claim 21 comprising: triggering detachment of the appendage.

15

25

- 25. The method according to claim 21 wherein detachment is triggered by intake of a cold drink.
 - 26. The method according to claim 21 wherein detachment is trigged by exposure to a specified pH environment.
 - 27. A method according to claim 21 wherein the sensing device is an imaging device.
 - 28. A method for viewing the upper GI tract, the method comprising: inserting an ingestible imaging device, the device comprising a substantially spherical section and a detachable appendage; and detaching the appendage.
- 29. The method according to claim 28 comprising: detaching the appendage near entrance to a stomach.
 - 30. The method according to claim 28 comprising: orienting the in-vivo device along an esophageal wall.

- 31. The method according to claim 28 comprising: triggering detachment of the appendage.
- 32. The method according to claim 28 wherein detachment is triggered by the intake of a hot drink.
- 5 33. The method according to claim 28 wherein detachment is triggered by an elapsed time period.
 - 34. The method according to claim 28 wherein the detachment is externally controlled.